

**San José State University**  
**Department of Anthropology**  
**Anth 012 Sec. 2, Introduction to Human Evolution,**  
**Fall 2015**

**Instructor:** Dr. Caie Yan  
**Office Location:** Clark Hall 402G  
**Telephone:** 408-924-5712  
**Email:** caie.yan@sjsu.edu  
**Office Hours:** Monday 10:30-11:30 or by appointment  
**Class Days/Time:** MW 12:00-13:15 (section 2)  
**Classroom:** WSQ 004  
**GE/SJSU Studies Category:** B2/Life Science

**Course Description**

The human organism from an evolutionary perspective. The foundations of life and evolutionary theory. Introduction to primate behavior and the fossil record. Human biocultural evolution over the last sixty million years.

Detailed Course Description: Introduction to Human Evolution is a course designed to allow students to appreciate the evolutionary history of our species and the biological bases that are at the foundation of this process. The course is an introductory one; thus, no specific prior knowledge is assumed. There are no prerequisites to take this course.

During the semester, students will acquire basic biological knowledge relating to molecular biology, cell reproduction, fundamental principles of micro- and macro-evolutionary theory (especially the role of natural selection), and the intellectual background leading to the development of evolutionary theory.

This foundation will then be used to explore the specific evolutionary history of major groups of organisms with a specific focus on human evolutionary history. Comparative perspectives will be incorporated so to provide a basis for understanding how humans are related to other primates (and what this implies structurally, physiologically, and behaviorally). Furthermore, data provided directly by the fossil and molecular records will be comprehensively reviewed in tracing the major features of human evolution. In summary, this course attempts to place our species in a clear evolutionary context and to ask basic questions relating to human origins, such as what kind of creature are we, how did we get to be this way, and where did we come from.

Major topics will include:

- The history of evolutionary theory
- Biological basis of life: cells, DNA, and genes
- Evolution and heredity

Overview of primates  
Hominid/human origins  
Modern human origins  
Human variation and adaptation

### **Course Goals and Student Learning Objectives**

At a general level, this course is primarily about the nature of the evolutionary process, how it works, and how scientists have come to understand the process (specifically to understand ourselves). The evidence relating to human evolution is used to illustrate evolutionary and biological processes (such as natural selection, reproduction, heredity, etc). In addressing the fundamental questions relating to human origins, you will be challenged to think critically, apply sound scientific methodologies, understand and assess quantitative data, and communicate your knowledge.

At SJSU, students are encouraged to recognize that education is participatory experience. Thus, each student is expected to contribute to further refining the course objectives (so better to articulate your individual expectations and needs), to give feedback to the instructor regarding the adequacy of your learning and how well the course assessment measures that learning (and how these assessment tools can be improved). Finally, each student is challenged to be engaged in the exploration of the fascinating material covered this semester, to participate in class discussions, and to relate in assignments and exercises how you can apply these concepts to your everyday life.

The most important contribution this course can make to your education is to provide you with greater ability to think critically. As a result, this skill will contribute permanently to your further education, that it, for the remainder of your lifetime.

### **GE/SJSU Studies Learning Outcomes (LO)**

Upon successful completion of this course, students will be able to:

- LO1 use methods of science and knowledge derived from current scientific inquiry in life or physical science to question existing explanations;
- LO2 demonstrate ways in which science influences and is influenced by complex societies, including political and moral issues;
- LO3 recognize methods of science, in which quantitative, analytical reasoning techniques are used.

### **Course Content Learning Outcomes**

Upon successful completion of this course, students should have increased:

- CLO 1 explain the evolutionary process, how it works, and how scientists have come to understand the process (specifically to understand ourselves).
- CLO 2 describe the evolutionary history of our species and the biological bases that are at the foundation of this process.
- CLO3 comprehend basic biological knowledge relating to molecular biology, cell reproduction, fundamental principles of micro- and macro-evolutionary theory (especially the role of natural selection), and the intellectual background leading to the development of evolutionary theory.
- CLO4 explain from a comparative perspective how humans are related to other primates (and what this implies structurally, physiologically, and behaviorally).

## Required Texts/Readings

Biological Anthropology. 7<sup>th</sup> edition. Michael Alan Park.  
McGraw Hill Publishing Company, 2012. **ISBN13:** 978-0078034954 **ISBN10:** 0078034957

The textbook can be purchased at the bookstore.

## Course Assignments and Grading Policy

Exam 1	25%
Exam 2	20%
Final	30%
Writing assignments (2)	20%
Fossil quiz (in class)	5%
Extra credit project	5%
Total	100%

Grading is as followed:

A	B	C	D	F
97% - 100% = A+	87-89% = B+	77-79% = C+	67-69% = D+	Below 60% = F
93-96% = A	83-86% = B	73-76% = C	63-66% = D	
90-92% = A-	80-83% = B-	70-72% = C-	60-62% = D-	

Exams: There are two in-class exams and one final exam given during the final week. All exams are composed of multiple choice questions and Scantron T&E 0200 will be required. All exams are not cumulative. Exams are based on both the textbook and lectures. I will post study guides and sample questions on line before each exam.

Quiz: There is one in-class fossil quiz. You are required to match names and fossil replicas.

Make-up Exam: If you know in advance that you would be unable to attend an exam, it is your responsibility to contact me before the exams. Only students with a valid documented excuse will be able to take a make-up exam. Documents need to be official and verifiable, such as hospital receipts, police records, etc.

Writing assignment: The writing assignment is worth 20% of your final grade. You are required to write two 750+ words essay. Detailed instruction and suggested readings for each essay will be posted on line. Writing assignments will be graded based on clarity, conciseness, coherence, and grammar. Please turn in a hard copy of your paper, and an electronic copy via Turnitin.com before class on due date. No late assignments will be accepted.

Once I have graded an assignment, it will be in class to pick up. Students should pick up their assignments within two class periods and keep their assignments until the end of the semester; this is intended to prevent problems of lost grades and other similar issues.

Failure to turn in any of the writing assignments (in both versions – hard copy and turnitin.com) will result in an F in the class, regardless of achievement on other portions of the course (this is a university policy on GE course).

Extra credit project: The extra credit project is worth 5% of your final grade. For the extra credit project, you need to draw a hominid fossil distribution map. I will provide a blank map and a list of hominid species. Detailed instruction will be posted on line.

## **Cheating and Plagiarism**

I have zero-tolerance for cheating and plagiarism; if you cheat or plagiarize you will fail the course. Incidences of cheating and plagiarism will be turned into the academic integrity office; you have two (2) office hour periods to discuss the issue with me prior to my turning in the report. I will only discuss individual cases concerning academic integrity in my office.

Students are responsible for understanding and adhering to the academic integrity policy.

## **Classroom Protocol**

There will be various in-class participation assignments intended to help students. I highly recommend students attend class as often as possible. I post the lecture slides on line. But I do not post lecture notes.

Please turn off all electronic devices (which include iPods, Mp3 Players, Sidekicks, Cell phones, etc.) before class begins. You can use your laptop to take notes, while surfing the internet is not allowed.

## **Departmental Goals**

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Learn about the goals of the anthropology department and how it can benefit your education. [Goals](http://www.sjsu.edu/anthropology/departmentinfo/goals/index.html) <http://www.sjsu.edu/anthropology/departmentinfo/goals/index.html>

### **General Expectations, Rights and Responsibilities of the Student**

As members of the academic community, students accept both the rights and responsibilities incumbent upon all members of the institution. Students are encouraged to familiarize themselves with SJSU's policies and practices pertaining to the procedures to follow if and when questions or concerns about a class arises. See [University Policy S90-5](http://www.sjsu.edu/senate/docs/S90-5.pdf) at <http://www.sjsu.edu/senate/docs/S90-5.pdf>. More detailed information on a variety of related topics is available in the [SJSU catalog](http://info.sjsu.edu/webdbgen/narr/catalog/rec-12234.12506.html), at <http://info.sjsu.edu/webdbgen/narr/catalog/rec-12234.12506.html>. In general, it is recommended that students begin by seeking clarification or discussing concerns with their instructor. If such conversation is not possible, or if it does not serve to address the issue, it is recommended that the student contact the Department Chair as a next step.

### **Credit Hours**

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of forty-five hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture) for instruction or preparation/studying or course related activities including but not limited to internships, labs, clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus.

## University Policies

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Here are some of the basic university policies that students must follow.

### Dropping and Adding

Find the procedures and deadlines for adding and dropping classes.

[Catalog Policies](http://info.sjsu.edu/static/catalog/policies.html) <http://info.sjsu.edu/static/catalog/policies.html>.

[Add/drop deadlines](http://www.sjsu.edu/provost/services/academic_calendars/) [http://www.sjsu.edu/provost/services/academic\\_calendars/](http://www.sjsu.edu/provost/services/academic_calendars/)

[Late Drop Policy](http://www.sjsu.edu/aars/policies/latedrops/policy/) <http://www.sjsu.edu/aars/policies/latedrops/policy/>

### Consent for Recording of Class and Public Sharing of Instructor Material

All students must obtain the instructor's permission if they wish to record lectures or distribute materials from the class.

[University Policy S12-7](http://www.sjsu.edu/senate/docs/S12-7.pdf) <http://www.sjsu.edu/senate/docs/S12-7.pdf>

### Academic integrity

Learn about the importance of academic honesty and the consequences if it is violated.

[University Academic Integrity Policy S07-2](http://www.sjsu.edu/senate/docs/S07-2.pdf) <http://www.sjsu.edu/senate/docs/S07-2.pdf>

[Student Conduct and Ethical Development website](http://www.sjsu.edu/studentconduct/) <http://www.sjsu.edu/studentconduct/>

### Campus Policy in Compliance with the American Disabilities Act

Here are guidelines to request any course adaptations or accommodations you might need.

[Presidential Directive 97-03](http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf) [http://www.sjsu.edu/president/docs/directives/PD\\_1997-03.pdf](http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf)

[Accessible Education Center](http://www.sjsu.edu/aec) <http://www.sjsu.edu/aec>

## Resources

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The university provides resources that can help you succeed academically. Just look here.

[Academic Success Center](http://www.sjsu.edu/at/asc/) <http://www.sjsu.edu/at/asc/>

[Peer Connections website](http://peerconnections.sjsu.edu) <http://peerconnections.sjsu.edu>

[Writing Center website](http://www.sjsu.edu/writingcenter) <http://www.sjsu.edu/writingcenter>

[Counseling Services website](http://www.sjsu.edu/counseling) <http://www.sjsu.edu/counseling>

## Course Schedule

*This tentative schedule---including assignment due dates, in class exam dates, date of the final exam--- is subject to change with fair notice and how the notice will be made available.*

Week	Date	Topic	Readings	Assignments & Deadlines
1	8/24 8/26	Introduction to Class and biological anthropology History of Evolutionary Theory	Pp: 1-21 Pp: 23-40	
2	8/31 9/2	Natural Selection & Basic Concepts of Evolution DNA and Chromosomes	Pp: 43-50, 364-366	
3	9/7 9/9	Cell division and protein synthesis Mendelian Genetics	Pp: 50-58	
4	9/14 9/16	Modern Synthesis (Evolutionary Forces) Human Variation and Race (I)	Pp: 367-370; 61-79 Pp: 297-308	
5	9/21 9/23	Human Variation and Race (II) Review	Pp: 321-345	
6	<b>9/28</b> 9/30	<b>Exam I</b> Prosimians and Tarsiers	Pp: 117-138	
7	10/5 10/7	Anthropoids Apes	Pp: 117-138 Pp: 138-146	
8	10/12 10/14	Primate behavioral ecology The Human species	Pp: 149-167	Writing assignment I due (10/12)
9	10/19 10/21	Evolutionary time table and Speciation process Fossilization, Dating Fossils	Pp: 83-114 Pp: 171-196	
10	10/26 <b>10/28</b>	Primate Evolution and Contenders for the earliest hominins <b>Exam II</b>	Pp: 199-210	

Week	Date	Topic	Readings	Assignments & Deadlines
11	11/2 11/4	Australopithecines Early Homo species and <i>Homo erectus</i>	Pp: 210-231 Pp: 235-259	
12	11/9 11/11	Becoming human (I) <i>Veteran's Day (No class)</i>		
13	11/16 11/18	Sibling species of <i>Homo erectus</i> , <i>Homo heidelbergensis</i> Archaic Homo sapiens: Neanderthals	Pp: 259-266 Pp: 266-276	Writing assignment II due (11/18)
14	11/23 11/25	Origins of Anatomically Modern Humans Peopling of America and <b>Fossil quiz</b> (11/25, in class)	Pp: 276-294	Extra credit project (11/23)
15	11/30 12/2	Becoming human (III) Biological Impacts of Culture	Pp: 309-317	
16	12/7	Review		
<b>Final Exam</b>		<b>WSQ 004</b> <b>December 10<sup>th</sup>. 09:45-12:00</b>		